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UNISYS CORPORATION			WILSER, MICHAEL P	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/848,906

Applicant(s)

PALECEK ET AL.

Examiner

Michael Wilser

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-21 are pending in this application.

Drawings

2. The drawings are objected to because in Figure 5 the third column heading says Figure 16 reference, the specification does not contain a Figure 16 so it is unclear as to what figure is being referenced. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: the examiner notes the use of acronyms (e.g. ICE, MRI, DAC, etc.) throughout the specification without first including a description in plain text, as required.

Appropriate correction is required.

Claim Objections

4. Claim 3 is objected to because of the following informalities: line 3 has a double period at the end of activity. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1-5 and 11- 21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

(i) As per Claims 1-5 and 21, they are directed to an apparatus, but appear to be comprised of software alone without claiming associated computer hardware required for execution (i.e. Claim 1 recites a plurality of client applications, a service application, a service request, etc. which is considered software per se). Thus it is a software program/application that comprises software modules to perform a certain function.

(ii) As per Claims 11-20, they are directed to an apparatus, but appear to be comprised of software alone without claiming associated computer hardware required for execution (i.e. Claim 11 recites a plurality of means, wherein the plurality of means are also a software entity). Thus it is a software program/application that comprises software modules to perform a certain function.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 6, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaler et al. (US 7,051,330)

9. As per Claim 1, Kaler teaches the invention substantially as claimed including an apparatus comprising:

- a. a plurality of client applications which generate service requests
(column 1, lines 33-34);
- b. a service application responsively coupled to the plurality of client applications (column 4, lines 61-63);
- c. a first service request requiring multiple activities generated by a first one of the plurality of client applications transferred to the service application
(column 5, lines 5-12);

d. a first thread pool responsively coupled to the service application which handles one of the activities of the first service request (column 6, lines 23-24 & column 10, line 3-7); and

e. a second thread pool responsively coupled to the service application which handles the second activity of the first service request (column 6, lines 23-24 & column 10, lines 3-7).

10. Kaler does not explicitly disclose that the first service request requires input/output and computational activity. However, Kaler does disclose that multi-state functions from clients can be handled by different groups of threads or specially assigned threads (column 5, lines 5-12 & column 10, lines 3-7).

11. It would have been obvious to one of ordinary skill in the art at the time of invention to have included the activities to be requested be input/output and computational activities in Kaler's invention. One would have been motivated to have the service request comprise these types of activities since they are common functions which are typically requested by clients upon a service application.

12. As per Claim 6, Kaler teaches the invention substantially as claimed including a method of managing a service request requiring multiple activities of a client application by a service application (column 5, lines 5-12) comprising:

a. transferring the service request from the client application to the service application (column 4, lines 58-67);

b. handling the first activity using a first thread pool (column 6, lines 23-24 & column 10, lines 3-7); and

c. handling the second activity using a second thread pool (column 6, lines 23-24 & column 10, lines 3-7).

13. Kaler does not explicitly disclose that the first service request requires input/output and computational activity. However, Kaler does disclose that multi-state functions from clients can be handled by different groups of threads or specially assigned threads (column 5, lines 5-12 & column 10, lines 3-7).

14. It would have been obvious to one of ordinary skill in the art at the time of invention to have included the activities to be requested be input/output and computational activities in Kaler's invention. One would have been motivated to have the service request comprise these types of activities since they are common functions which are typically requested by clients upon a service application.

15. As per Claim 11, Kaler teaches the invention substantially as claimed including an apparatus comprising:

a. means for generating a service request requiring multiple activities (column 1, lines 33-34);

b. means responsively coupled to the generating means for honoring the service request via the multiple activities (column 4, lines 61-63);

c. a first thread pool means responsively couple to the honoring means for handling the first activity (column 6, lines 23-24 & column 10, lines 3-7); and

d. second thread pool means responsively coupled to the honoring means for handling the second activity (column 6, lines 23-24 & column 10, lines 3-7).

16. Kaler does not explicitly disclose that the first service request requires input/output and computational activity. However, Kaler does disclose that multi-state functions from clients can be handled by different groups of threads or specially assigned threads (column 5, lines 5-12 & column 10, lines 3-7).

17. It would have been obvious to one of ordinary skill in the art at the time of invention to have included the activities to be requested be input/output and computational activities in Kaler's invention. One would have been motivated to have the service request comprise these types of activities since they are common functions which are typically requested by clients upon a service application.

18. As per Claim 16, Kaler teaches the invention substantially as claimed including a data processing system having a client application which generates a service request requiring multiple activities responsively coupled to a service application (column 1, lines 33-34 & column 4, lines 61-63) comprising:

- a. a first thread pool responsively coupled to the service application for handling the first activity (column 6, lines 23-24 & column 10, lines 3-7); and
- b. a second thread pool responsively coupled to the service application for handling the second activity (column 6, lines 23-24 & column 10, lines 3-7).

19. Kaler does not explicitly disclose that the first service request requires input/output and computational activity. However, Kaler does disclose that multi-state functions from clients can be handled by different groups of threads or specially assigned threads (column 5, lines 5-12 & column 10, lines 3-7).

20. It would have been obvious to one of ordinary skill in the art at the time of invention to have included the activities to be requested be input/output and computational activities in Kaler's invention. One would have been motivated to have the service request comprise these types of activities since they are common functions which are typically requested by clients upon a service application.

21. Claims 2-5, 7-10, 12-15, and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaler et al. (US 7,051,330) as applied to claims 1, 6, 11, and 16 above, and in view of Vakrat et al. (US 7,296,190).

22. As per Claim 2, Kaler does not explicitly disclose of a first client key which uniquely identifies the first one of the plurality of client applications to the first thread pool and the second thread pool. However, Vakrat discloses a system that does use a unique key to identify client applications with thread pools (column 5, lines 3-8).

23. It would have been obvious to one of ordinary skill in the art at the time of invention to have used the key in Vakrat's system to identify client applications in Kaler's invention. One would have been motivated to use this unique key so that the client application and threads are aware of which one of the plurality of service requests they are working on and for which client the information needs to be returned to.

24. As per Claim 3, Kaler further discloses a second one of the plurality of client applications generates a second service request transferred to the service application requiring multiple activities (column 5, lines 35-44).

25. As per Claim 4, Vakrat further discloses a second client key which uniquely identifies the second one of the plurality of client applications to the first thread pool and the second thread pool (column 5, lines 3-8).

26. As per Claim 5, Kaler further discloses a user terminal responsively coupled to a data base management system via a publicly accessible digital data

communication network and wherein the first client application is located within the user terminal and the service application is located within the data base management system (Figure 3).

27. As per Claim 7, it is rejected for the same reason as Claim 2 above.

28. As per Claim 8, Kaler further discloses transferring the service request to the service application via a publicly accessible digital data communication network (Figure 3).

29. As per Claim 9, Kaler further discloses a user terminal wherein the client application is located within the user terminal (Figure 3).

30. As per Claim 10, Kaler further discloses a data base management system wherein the service application is located within the data base management system (Figure 3).

31. As per Claim 12, Vakrat further discloses means for uniquely identifying the generating means to the first thread pool means and the second thread pool means (column 5, lines 3-8).

32. As per Claim 13, Vakrat further disclose the identifying means further comprises a client key (column 5, lines 3-8).

33. As per Claim 14, Kaler further discloses the honoring means further comprises a data base management system (Figure 3).

34. As per Claim 15, Kaler further discloses the generating means further comprises a user terminal (Figure 3).

35. As per Claim 17, it is rejected for the same reason as Claim 2 above.

36. As per Claim 18, it is rejected for the same reason as Claim 15 above.

37. As per Claim 19, it is rejected for the same reason as Claim 8 above.

38. As per Claim 20, it is rejected for the same reason as Claim 14 above.

39. As per Claim 21, Kaler teaches the invention substantially as claimed including an apparatus comprising:

a. a plurality of client applications which generate service requests
(column 1, lines 33-34);

b. a service application responsively coupled to the plurality of client applications (column 4, lines 61-63);

c. a first service request requiring multiple activities generated by a first one of the plurality of client applications transferred to the service application (column 5, lines 5-12);

d. a first thread pool responsively coupled to the service application which handles one of the activities of the first service request (column 6, lines 23-24 & column 10, line 3-7);

e. a second thread pool responsively coupled to the service application which handles the second activity of the first service request (column 6, lines 23-24 & column 10, lines 3-7);

f. a second one of the plurality of client applications generates a second service request transferred to the service application requiring multiple activities (column 5, lines 35-44); and

g. a user terminal responsively coupled to a data base management system via a publicly accessible digital data communication network and wherein the first client application is located within the user terminal and the service application is located within the data base management system (Figure 3).

And, Vakrat discloses:

a. a first client key which uniquely identifies the first one of the plurality of client applications to the first thread pool and the second thread (column 5, lines 3-8 & 56-60); and

b. discloses a second client key which uniquely identifies the second one of the plurality of client applications to the first thread pool and the second thread pool (column 5, lines 3-8).

40. Kaler does not explicitly disclose that the first service request requires input/output and computational activity. However, Kaler does disclose that multi-state functions from clients can be handled by different groups of threads or specially assigned threads (column 5, lines 5-12 & column 10, lines 3-7).

41. It would have been obvious to one of ordinary skill in the art at the time of invention to have included the activities to be requested be input/output and computational activities in Kaler's invention. One would have been motivated to have the service request comprise these types of activities since they are common functions which are typically requested by clients upon a service application.

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Belkin (US 6,895,584) Mechanism for Evaluating Requests Prior to Disposition in a Multi-Threaded Environment.

b. Patiejunas (US 7,219,346) System and Method for Implementing a Client Side HTTP Stack.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Wilser whose telephone number is (571) 270-1689. The examiner can normally be reached on Mon-Fri 7:30-5:00 EST (Alt Fridays Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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